

Amendments to the Claims:

Listing of Claims:

- 5 Claim 1 (Currently amended) A process for depositing silicon nitride films on wafers, comprising:
- providing a chemical vapor deposition (CVD) system comprising a tubular furnace, at least one BTBAS (bis t-ButylaminoSilane) supply piping line connected to a base portion of said tubular furnace, an exhaust piping line connected to an upper portion of said tubular furnace, a bypass line connecting said BTBAS supply piping line with said
 - 10 exhaust piping line, and a vacuum pump connected to said exhaust piping line, wherein said bypass line is initially interrupted;
 - placing a batch of wafers into a tube of said tubular furnace;
 - flowing nitrogen-containing gas into said tube;
 - flowing BTBAS into said tube through said BTBAS supply piping line and said
 - 15 vacuum pump maintaining pressure in said tube in a range of between about 0.1 Torr and 3 Torr;
 - performing a silicon nitride deposition process in said tube to deposit a BTBAS-based silicon nitride film on said wafers;
 - upon completion of said silicon nitride deposition process, interrupting said BTBAS
 - 20 supply piping line and opening said initially interrupted bypass line to evacuating said BTBAS from said BTBAS supply piping line between said tubular furnace and a BTBAS supply source by way of said bypass line instead of by way of said tubular furnace; and
 - removing said batch of wafers.
- 25 Claim 2 (Original) The process for depositing silicon nitride films on wafers according to claim 1 wherein after removing said batch of wafers, the process further comprises flowing cleaning gas into said tube.

Claim 3 (Original) The process for depositing silicon nitride films on wafers according to claim 2 wherein said cleaning gas comprises ClF_3 .

5 Claim 4 (Original) The process for depositing silicon nitride films on wafers according to claim 2 wherein said cleaning gas comprises NF_3 .

Claim 5 (Canceled)

10 Claim 6 (Original) The process for depositing silicon nitride films on wafers according to claim 1 wherein said nitrogen-containing gas comprises ammonia gas.

15 Claim 7 (Original) The process for depositing silicon nitride films on wafers according to claim 1 wherein silicon nitride deposition process is carried out at a temperature of between $450\sim 600^\circ\text{C}$.

Claim 8 (Original) The process for depositing silicon nitride films on wafers according to claim 1 wherein said BTBAS is flowed into said tube at a flow rate of about $25\sim 500$ sccm.

20 Claim 9 (Original) The process for depositing silicon nitride films on wafers according to claim 1 wherein said nitrogen-containing gas is flowed into said tube at a flow rate of about $50\sim 1000$ sccm.

25 Claims 10-15 (canceled)